

## The Behavior of Anaphors in Gerunds

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## The Behavior of Anaphors in Gerunds\*

Jun Abe

### 0. Introduction

Recently, Aoun (1985) has proposed that Chomsky's (1981) A-binding theory should be generalized so as to subsume  $\bar{A}$ -binding relation such as that of a wh-phrase and its trace. The most great advantage that Aoun's Generalized Binding Theory (hereafter AGBT) has is that the theory will dispense with the Empty Category Principle, which Chomsky's theory needs as a separate principle. If the AGBT does not produce any wrinkles elsewhere, it is quite clear that the theory is superior to that of Chomsky's.

Unfortunately, Aoun has never analyzed the behavior of anaphors in gerunds. The central topic we will consider in this article is how their behavior in gerunds is captured under the AGBT.

We will consider two kinds of gerund: one is what Horn (1975) calls the POSS-ING construction as in (1a) and the ACC(u-sative)-ING construction as in (1b):

- (1) a. We imagined John's singing old popular songs.
- b. We imagined John singing old popular songs.

Both constructions in (1) are like nominals in that they are much the same as true NPs in distribution, i.e., they occur only in argument positions:

- (2) a. Their trying to sing a song was just too horrible.
- b. Them trying to sing a song was just too horrible.
- (3) a. Bill wondered about everyone's drinking beer at ballgames.
- b. Bill wondered about everyone drinking beer at ballgames.
- (4) a. \*It was nice my seeing you.
- b. \*It was nice me seeing you.

The sentences in (1)-(3) are grammatical since the constructions in question appear in argument positions, while those in (4) are ungrammatical since they occur in nonargument positions.

However, the two constructions are quite different in many aspects of syntactic behavior: the POSS-ING construction behaves like NP whereas the ACC-ING construction behaves like S. This observation we will see in Section 1. In Section 2, we will outline the AGBT, and see how the behavior of anaphors in the two constructions is explained by this theory. Section 3 is a brief summary.

## 1. The POSS-ING and ACC-ING Constructions

### 1.1. The Categorial Status

In this section, we will address the question of what the categorial status of the POSS- and ACC-ING construction is. Horn (1975) observes that the POSS-ING construction is NP whereas the ACC-ING construction is S in that the former behaves just like true NPs with respect to many syntactic rules while the latter behaves just like FOR-TO and THAT clauses which are generally assumed to be Ss.

In cleft sentences, NPs can occur in the focus position, but not Ss as in (5):

- (5) a. \*It was that Israel attacked Egypt that we believed.
- b. \*It was for John to kiss Mary that they preferred.

The POSS-ING construction differs from the ACC-ING construction in that the former, like true NPs, can appear in that position but the latter cannot:

- (6) a. It was John's kissing Mary that upset everyone.
- b. \*It was John kissing Mary that upset everyone.

The same behavior can be observed with respect to Topicalization: the POSS-ING construction can be topicalized whereas the ACC-ING construction cannot:

- (7) a. Egypt's attacking Israel we admired.



$$\left\{ \begin{array}{l} *were \\ was \end{array} \right\} \text{ preferred by everyone.}$$

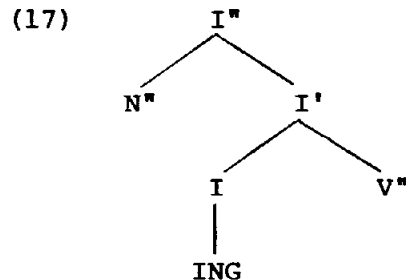
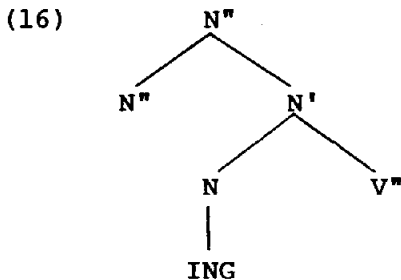
In this respect, too, the POSS-ING construction behaves like NP and the ACC-ING construction like S:

- (14) a. John's playing the piano and Fred's singing a song  
           song  $\left\{ \begin{array}{l} were \\ *was \end{array} \right\}$  terrifying.
- b. John playing the piano and Fred singing a song  
            $\left\{ \begin{array}{l} *were \\ was \end{array} \right\}$  terrifying.

We can conclude from the above observations that the POSS-ING construction has the categorial status of NP whereas the ACC-ING construction has the categorial status of S. If we assume here the most restricted X-bar theory, proposed by Chomsky (1986) as in (15):

- (15) a.  $X' = X X''^*$   
       b.  $X'' = X''^* X'$   
       where  $X''^*$  stands for zero or more occurrences of some maximal projection and  $X = X^0$

then the POSS- and ACC-ING constructions have the internal structures (16) and (17) respectively:



We are here assuming, following Chomsky, that the clausal category conventionally labelled S is  $I''$  whose head is I (=INFL).

## 1.2. The Existence of AGR

We have seen so far that the POSS- and ACC-ING constructions

are different from each other in their categorial status. Nevertheless, as we have seen in Introduction, the two constructions are similar with respect to their distribution, which is demonstrated by the fact that in most cases they can be substituted for each other without change of meaning. In fact, like true NPs, they appear only in argument positions; cf. (1)-(4). To put it more technically, they occur only in Case-marked positions in terms of the Government and Binding Theory. Compare (18a) and (18b):

- (18) a. \*Bertha was afraid his (him) leaving.  
 b. Bertha was afraid of his (him) leaving.

In (18a), since the adjective afraid is not a Case-assigner, the complement his (him) leaving cannot receive Case, which is reflected in the ungrammaticality of this sentence. On the other hand, in (18b), the complement his (him) leaving can receive Case from the preposition of, and hence this sentence is grammatical. It appears, then, that the POSS- and ACC-ING constructions are both subject to the Case Filter:

- (19) \* $[_N \alpha]$ , where  $\alpha$  includes a phonetic matrix, if N has  
 no Case (Chomsky (1981: 49))

It is a matter of course that the former is subject to the filter since it has the categorial status of NP. But a problem remains with respect to the latter: why is the ACC-ING construction, which is IP, subject to the filter?

Reuland (1983a) claims that ING in the ACC-ING construction is "a realization of a nominal element in the verbal inflection marker and that this construction is a tenseless finite clause, where the finiteness resides in the fact that a nominal element functioning like an agreement marker is syntactically present." He assumes the expansion of INFL as follows:<sup>1</sup>

- (20) INFL  $\rightarrow$  [+TENSE, +AGR] (AGR is the (possibly abstract) agreement marker of a finite clause.)  
 a. [+TENSE, +AGR] (the finite tensed clause)

- b. [-Tense, +AGR] → -ing
- c. [-Tense, -AGR] → to

If this claim is correct, it explains why the ACC-ING construction is subject to the Case Filter: it is the existence of the nominal element AGR in INFL that makes this construction subject to the filter. ING is different from TO in this respect; TO does not have AGR and hence is not subject to the Case Filter. One might claim that the finite tensed clause must also be subject to this filter since its INFL has AGR. But this does not appear to be the case. Compare (21) and (22):

- (21) a. \*I insisted him going.
- b. I insisted on him going.
- (22) I insisted that he was wrong.

We learn from the ungrammaticality of (21a) that insist is not a Case-assigner. It is predicted, then, that (22) should be ungrammatical since the tensed clause that he was wrong cannot receive Case, but this is not true.

However, notice that INFL in the finite tensed clause has its own Case to assign to its subject (=Nominative Case) by virtue of [+TENSE]. It follows, then that, though the finite tensed clause has the nominal element AGR and need Case, it need not receive Case from elsewhere, but can supply itself with Case. In this respect, it differs from the ACC-ING construction which has no Case to supply. This explicitly accounts for the difference in grammaticality between (21a) and (22).

Now we have answered the problem of why the ACC-ING construction is subject to the Case Filter by assuming that its INFL has AGR. Next, let us consider the question whether the ING in the POSS-ING construction has AGR. Though we have assumed it to be a nominal head in the preceding section, it can also be regarded as "inflectional" in that it takes VP as its complement, like the ING in the ACC-ING construction; hence, it is an inflectional nominal and can be represented as N<sub>[+I]</sub>, where the specification [+I] states that the N takes VP as its complement. On the

other hand, the ING in the ACC-ING construction can be considered to be a nominal inflection since it has AGR and be represented as  $I$ , where  $[+N]=[+AGR]$ , and states that it is subject to the  $[+N]$

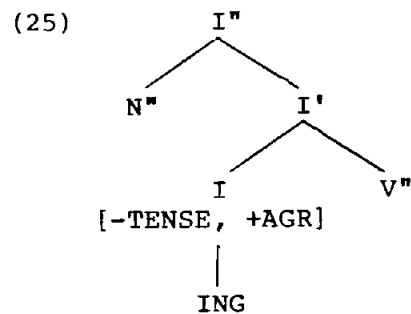
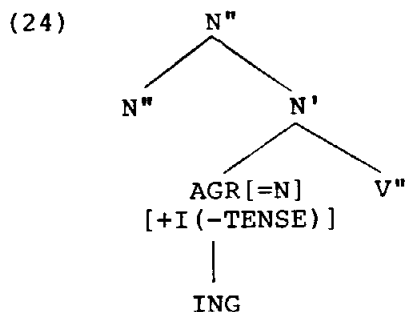
Case filter. Interestingly enough the gerundive ING seems to have the following two features:

(23) ING  $[+I(-TENSE), +AGR(=+N)]$

(23) is realized in two ways: one is realized as  $I$ , functioning as the head of IP (the ACC-ING construction) and the other is realized as AGR, functioning as the head of NP (the

POSS-ING construction). If this is correct, then the head of the latter construction is, exactly speaking, AGR rather than N.

Now the internal structures of the two constructions, represented as (16) and (17) respectively in the preceding section, may be more exactly represented as follows:



In both constructions, it is the existence of AGR by virtue of which these constructions occur only in Case-marked positions.

## 2. Generalized Binding Theory

### 2.1. Observations

Aoun (1985) generalizes Chomsky's (1981) A-binding theory so as to subsume  $\bar{A}$ -binding as well. This generalized binding theory thus constrains the relation of wh-elements and their traces as well as the behavior of anaphors and pronouns. This



theory should, then, provide an explanation for the following properties of the POSS- and ACC-ING constructions:

(i) Anaphors can appear in the subject position of the ACC-ING construction, but not in that of the POSS-ING construction:

(26) The architects favored each other being placed upon the investigations committee.

(27) \*The architects favored each other's being placed upon the investigations committee.

(ii) Long Wh Movement applies freely out of either subject or object position in the ACC-ING construction, but does not apply from either position in the POSS-ING construction:

(28) a. Linguistics is what we'd favor John studying.

b. The only one who we'd favor studying linguistics is John.

(29) a. \*Linguistics is what we'd favor John's studying.

b. \*The only one whose we'd favor studying linguistics is John.

In Section 2.3., we will see how these properties can be explained under the AGBT, but before that, we will survey the theory in the next section.

## 2.2. An Outline

Aoun (1985) formulates the Generalized Binding Principles as follows:

(30) Generalized Binding Principles

A. An anaphor must be X-bound in its governing category.

B. A pronominal must be X-free in its governing category.

C. A name must be A-free.

(where  $X=A$  or  $\bar{A}$ )

The principles apply to NPs in both A- and  $\bar{A}$ -positions. An NP is bound if it is c-commanded by a coindexed NP; if it is not,

it is free. Anaphors are lexical NPs such as reciprocals and reflexives, and all empty elements — PRO, NP-trace, and wh-trace. Pronominals are NPs such as he, she, etc., as well as PRO. Names are NPs such as John, etc., and variables such as wh-traces. As an anaphor, PRO will be subject to principle (A) and as a pronominal, it will be subject to principle (B). Being subject to both principles, it must be ungoverned in order to satisfy both requirements. Since variables are both anaphors and names, they must be  $\bar{A}$ -bound in their governing category and must be A-free.

Governing category is defined as in (31):

- (31)  $\beta$  is a governing category for  $\alpha$  iff  $\beta$  is the minimal category containing  $\alpha$ , a governor of  $\alpha$ , and a SUBJECT accessible to  $\alpha$ .

Accessibility is defined as follows:

- (32)  $\alpha$  is accessible to  $\beta$  iff  $\beta$  is in the c-command domain of  $\alpha$  and coindexing of  $(\alpha, \beta)$  would not violate the i-within-i Condition (33) or principle (C) of the binding theory.
- (33)  $[ \gamma_i \dots \delta_i \dots ]$

It is further assumed that AGR is coindexed with the NP it agrees with. A SUBJECT is "the most prominent nominal element" in its governing category; we assume "most prominent" as follows:

- (34)  $\alpha$  is "most prominent" in  $\beta$  iff  $\alpha$  is  $\beta$ 's specifier or its agreement marker.

In (34), "a specifier" includes a traditional subject and "its agreement marker" designates AGR.

Furthermore, we assume, following Aoun:

- (35) The root sentence is the governing category for a governed element that lacks an accessible SUBJECT.

This stipulation accounts for the following sentence:

(36) \*[For each other to win] would be unfortunate.

In (36) each other has no accessible SUBJECT: the coindexing of the matrix AGR and the reciprocal would violate the i-within-i Condition. Hence, by (35), the main clause counts as its governing category in which the anaphor is A-free, and the sentence is thus ruled out.

To see how this system works, consider the following examples:

(37) [<sub>IP</sub> We AGR thought [<sub>CP</sub> (that) [<sub>IP</sub> [<sub>NP</sub> pictures of each other] AGR would be on sale]]].

(38) [<sub>CP</sub> Who<sub>i</sub> [<sub>IP</sub> do you think [<sub>CP</sub> (that) [<sub>IP</sub> he AGR met t<sub>i</sub>]]]]].

In (37) the embedded IP contains a governor of each other but not a SUBJECT accessible to it since the coindexing of the embedded AGR and the reciprocal would violate the i-within-i Condition. The matrix IP, however, contains a governor of each other and a SUBJECT accessible to each other (the matrix subject or AGR) and hence counts as the governing category for the reciprocal in which it is A-bound by we, and the sentence is correctly marked grammatical. In (38) the variable t<sub>i</sub> has no accessible SUBJECT: the coindexing of the variable with either the embedded subject (or AGR) or the matrix subject (or AGR) would violate principle (C), which says that a name must be A-free. Hence, by (35), the main clause counts as its governing category in which the variable is  $\bar{A}$ -bound by who<sub>i</sub>, and the sentence is correctly marked grammatical.

Before seeing how the properties observed in the preceding section follow, it is necessary to mention government in detail. We follow Reuland (1983a, b) in the definition of government with a slight modification. According to him, government is defined from two points of view: one is about its purely structural relation, which is captured as the notion of a governing domain, and the other is about the kind of governors.

He assumes a governing domain as follows:

- (39) b is in the governing domain of a iff
- a.  $\underline{a} = X^0$  ( $X = N, A, V, P, COMP, INFL$ )
  - b. a and b are contained in  $X^i$  and a is the head of  $X^i$ ;
  - c. there is no c such that
    - i.  $\underline{c} = Y^0$  and
    - ii. c and b are contained in  $Y^i$  and c is the head of  $Y^i$ , unless  $Y^i$  contains a.

(39) states that the domain of the head of a construction is opaque to outside governors, except for the case in which the head itself is the target of government. For example, in (40):

- (40) [ $Y^n \dots Y^0 \dots [X^n \dots Z^n \dots X^0 \dots]$  ...]

where  $Y^0$  and  $X^0$  are heads of  $Y^n$  and  $X^n$  respectively

$X^0$  may govern  $Z^n$  since the latter is in the former's governing domain  $X^n$ , whereas  $Y^0$  may not govern  $Z^n$  on account of the opacity of the governing domain  $X^n$ ; but  $Y^0$  may govern  $X^0$ , the head of  $X^n$ .

Next let us consider the kind of governors. Reuland (1983b) postulates two kinds of governors. One is such that it governs any constituent in its governing domain unconditionally; we assume it to include a lexical governor such as N, V, A and INFL[+TENSE]. The other is such that it governs a constituent in its governing domain only if a certain requirement is met, i.e., if the governor subcategorizes for the constituent in question; we assume it to include a nonlexical governor such as P, COMP and INFL[-TENSE].<sup>2</sup>

Now turn to the government of the subject positions of the ACC- and POSS-ING constructions. The ING in the former construction is INFL[-TENSE] and thus does not govern its subject position since it does not subcategorize for the latter. Furthermore, being in the governing domain of the ING, the subject position is not governed by any outside governor; after all, the position is ungoverned. This is supported by the fact that PRO can appear in

that position, as in (41):

- (41) The architects favored [<sub>IP</sub> PRO being placed upon the investigations committee].

On the other hand, assuming that the POSS-ING construction has the internal structure (24), its subject position is governed by its head since the head is a lexical governor. This is compatible with the fact that in general PRO cannot occur in the subject position of an NP, as illustrated by (42):<sup>3</sup>

- (42) \*I like [<sub>NP</sub> PRO book].

### 2.3. Theoretical Implications

Property (i) of Section 2.1. is illustrated in the examples (26) and (27) repeated here:

- (26) [<sub>IP</sub> the architects favored [<sub>IP</sub> each other being placed upon the investigations committee]]  
 (27) \* [<sub>IP</sub> the architects favored [<sub>NP</sub> each other's being placed upon the investigations committee]]

The ungrammaticality of (27) can be easily accounted for under the AGBT. The governing category for each other is the NP complement of favor since it contains the reciprocal's governor (ING) and the accessible SUBJECT (AGR in ING). The anaphor each other is therefore A-free in its governing category, violating (30A), and the sentence is thus ruled out.

As for (26), since the subject position of the ACC-ING construction is ungoverned, each other does not have its own governing category, and hence the sentence cannot be treated under the AGBT. Now we tentatively reformulate governing category as binding category (43):

- (43)  $\beta$  is a binding category for  $\alpha$  iff  $\beta$  is the minimal category containing  $\alpha$ , a governor or a Case-assigner of  $\alpha$ , and a SUBJECT accessible to  $\alpha$ .

In most cases, (43) has the same effect as (31) since the

Case-assigner of  $\alpha$  is usually the governor of  $\alpha$  as well. However, it has a special effect in the case of the overt subject of the ACC-ING construction which does not have a governor (hence is ungoverned) but must be somehow assigned Case so as to satisfy the Case Filter. How does the overt subject receive Case? Recall that ING must be Case-marked since it is nominal, i.e., it has AGR which is subject to the Case Filter. It seems, then, that in (26) ING is governed by the matrix verb favor (cf. the discussion on (40)) and is thus assigned objective Case. This Case, in turn, is inherited onto its overt subject each other under agreement.<sup>4</sup> In short, each other receives its Case from the matrix verb favor through its head ING. Then, the binding category for each other will be the matrix VP since it contains the reciprocal's Case-assigner (the matrix verb favor) and the SUBJECT accessible to it (AGR in ING). However the AGR in ING is not "most prominent" in the matrix VP under the definition (34) since it is neither the VP's specifier nor its agreement marker. Thus the AGR in ING cannot function as SUBJECT. Since the matrix subject or AGR is accessible to each other, the binding category for it is the matrix IP in which the subject or AGR is most prominent. The anaphor each other is therefore A-bound by the matrix subject the architects in its binding category, and the sentence is correctly marked grammatical.

Turning to property (ii), the applicability of long Wh Movement, (28) and (29) have the following structures, where irrelevant details are omitted:

- (28') a. ... [<sub>CP</sub> what<sub>i</sub> [<sub>IP</sub> we'd favor [<sub>IP</sub> John studying t<sub>i</sub>]]]  
 b. ... [<sub>CP</sub> who<sub>i</sub> [<sub>IP</sub> we'd favor [<sub>IP</sub> t<sub>i</sub> studying linguistics]]] ...
- (29') a. \*... [<sub>CP</sub> what<sub>i</sub> [<sub>IP</sub> we'd favor [<sub>NP</sub> John's studying t<sub>i</sub>]]]  
 b. \*... [<sub>CP</sub> whose<sub>i</sub> [<sub>IP</sub> we'd favor [<sub>NP</sub> t<sub>i</sub> studying linguistics]]] ...

The explanation for the examples in (28) is straightforward. In (28a') the variable  $t_i$  has no accessible SUBJECT since the coindexing of the variable with either the embedded subject (or AGR) or the matrix subject (or AGR) would violate principle (C). Thus, by (35), the main clause counts as its binding category in which the variable is  $\bar{A}$ -bound by what<sub>i</sub>, and the sentence is correctly marked grammatical. In (28b) the variable  $t_i$  has no accessible SUBJECT, either. If the embedded AGR were taken as SUBJECT, the binding category for the variable would be the matrix VP; it contains that AGR and the variable's Case-assigner (cf. the argument on (26) above). However, since the embedded AGR is not most prominent in the VP under the definition (34), it cannot serve as SUBJECT. Neither is the matrix subject or AGR accessible to the variable since the coindexing of the variable and the subject or AGR would violate principle (C). Hence, by (35), the main clause counts as its binding category in which the variable is  $\bar{A}$ -bound by who<sub>i</sub>. This accounts for the grammaticality of (28b).

Before trying to explain the data in (29), let us consider Case-marking of the subject of the POSS-ING construction. This subject position apparently receives genitive (or possessive) Case. We formulate the genitive Case assignment rule as follows:

- (44) Insert 's' in the environment [<sub>NP</sub> NP \_\_\_\_  $\bar{N}$ ]

Since the POSS-ING construction has the categorial status of NP, 's' is inserted under its subject. Recall, however, that in the ACC-ING construction, the Case assigned to ING from an outside governor is inherited onto the overt subject under agreement. It is reasonable to consider that the same holds true for the POSS-ING construction, i.e., that even in the latter construction, the Case assigned to ING is inherited onto the overt subject under agreement (recall that the ING of the POSS-ING construction also has AGR). For example, in (29a), the matrix verb favor governs and assigns objective Case to the following NP and this Case percolates down to its head ING. This Case, in turn,

is inherited onto its overt subject John's under agreement. It follows, then, that the subject position of the POSS-ING construction is Case-marked twice, which must be barred in an obvious way by a general convention.

One solution to this problem is to assume that the subject position in question has the following structure after rule (44) has applied:

$$(45) \quad [_{NP} [_{NP_1} [_{NP_2} \text{John}] 's] [\bar{N} [N \text{ING}] \dots]]$$

$NP_2$ , conjoined to by 's', has genitive Case and  $NP_1$ , which is built after the conjunction of 's', receives Case from ING by inheritance. This assumption clearly exempts the subject of the POSS-ING construction from violating the double Case-marking convention.<sup>5</sup> Notice that in (45)  $NP_2$  is in A-position since it is base-generated at D-structure, whereas  $NP_1$  is in  $\bar{A}$ -position since it is built after the conjunction of 's'.

Now turn to (29). First, (29a) has the following S-structure under our present analysis, where irrelevant details are omitted:

$$(29a') \quad \dots [_{CP} \text{what}_i [_{IP} \text{we'd favor } [_{NP_1} [_{NP_2} [_{NP_3} \text{John}] 's] [\bar{N} \text{studying } t_i]]]]]$$

The SUBJECT accessible to the variable  $t_i$  is  $NP_2$  John's or the embedded AGR in ING; the coindexing of the variable and  $NP_2$  would not violate principle (C) since  $NP_2$  is in  $\bar{A}$ -position, but not in A-position, and hence does not A-bind the variable. The binding category for the variable is hence  $NP_1$  since it contains the variable's governor (ING) and the SUBJECT. The variable is not bound by what<sub>i</sub> in this category, violating principle (A), and the sentence is correctly marked ungrammatical.

Horn (1975) observes incidentally that for some people sentences like (46) are acceptable with genitive Case on the



pronoun:

- (46) a. \*Which movie would you disapprove of John's seeing?  
 b. ?Which movie would you disapprove of his seeing?

This fact can be accounted for in an interesting way under our present analysis. Suppose that a genitive pronoun such as his, her, etc. is listed in the lexicon instead of he, she, etc. being conjoined to by 's at S-structure. Then, since the pronoun is base-generated at D-structure, it is in A-position. Now consider (46b), which will have the following S-structure:

- (46b') [<sub>CP</sub> which movie<sub>i</sub> [<sub>IP</sub> would you disapprove of  
 [<sub>NP</sub> his seeing t<sub>i</sub>]]]

Neither the subject his nor the embedded AGR is accessible to the variable t<sub>i</sub>; the coindexing of the variable and the subject (or the AGR) would A-bind the variable. Neither is the matrix subject or AGR accessible for the same reason. Thus the variable has no accessible SUBJECT and, by (35), the matrix clause is the binding category for the variable in which it is  $\bar{A}$ -bound by which movie<sub>i</sub>. This explains why (46b) is acceptable for some people.

Next consider (29b'). The binding category for the variable t<sub>i</sub> is the NP t<sub>i</sub> studying linguistics since it contains the variable's governor (ING) and the accessible SUBJECT (AGR in ING). The variable is  $\bar{A}$ -free in this category, and the sentence is thus ruled out.

### 3. Conclusion

In this article we analyzed the behavior of anaphors in the POSS- and ACC-ING constructions on the basis of Aoun's (1985) Generalized Binding Theory and a number of reasonable assumptions. In Section 1, we observed that the POSS-ING construction is NP whereas the ACC-ING construction is IP and that despite the difference of their categorial status, they both have AGR in their

heads and this confines both constructions to appearing in argument positions only. In Section 2, we saw how the different properties of the POSS- and ACC-ING constructions with respect to the behavior of anaphors follow under the AGBT.

## NOTES

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<sup>1</sup> We will leave open the question of whether the expansion [+TENSE, -AGR] is an accidental gap or not. Reuland (1983a) claims that the while-ING form such as (i) is a realization of [+TENSE, -AGR], but this does not seem correct to me:

(i) John was singing while dancing.

<sup>2</sup> For a special treatment of exceptional government, see Reuland (1983a).

One might think that the subject position of the ACC-ING construction may be exceptionally governed by an outside governor. But the impossibility of NP Movement under passive, illustrated below, will show that this is not true:

- (i) a. NP hated the boys eating the fish  
b. \*the boys were hated eating the fish  
cf. a. NP believes Bill to be a hero  
b. Bill is believed to be a hero

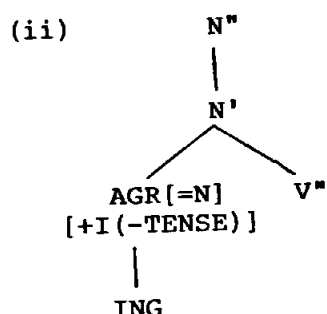
We thus agree with Reuland in the claim that the ACC-ING construction falls under the core case of government rather than under some exception.

<sup>3</sup> It is possible for the subject position of the POSS-ING construction to be null, as in (ib):

- (i) a. The commissioner denounced [<sub>NP</sub> {everyone's  
                                      {\*everyone} }  
          ing beer at ballgames].

- b. The commissioner denounced [<sub>NP</sub> Ø drinking beer at ballgames].

We assume that the embedded gerund in (ib) has the following internal structure:



Notice that, while (41) has the obligatory control reading (i.e., PRO=the architects), (ib) has the arbitrary control reading. Our analysis is compatible with Wasow and Roeper's (1972) claim that:

- (iii) Those gerunds without obligatory control are just those gerunds with the internal structure of NP's.

<sup>4</sup> When the ACC-ING construction appears in a subject position, the objective Case-marking surfaces on its subject as illustrated in (i):

- (i) Them trying to sing a song was just too horrible.

Our present analysis assumed in the text appears to make a wrong prediction in this respect: since the Case which will be inherited onto the subject them is assigned to ING by the matrix INFL, it must be nominative. Reuland (1983a) observes that Case-marking on a subject often shows up in objective form, as is clear from the fact that many speakers would use (iia) rather than (iib):

- (ii) a. Him and me are going to the party.  
       b. He and I are going to the party.

He claims that (i) and (ii) are a manifestation of the difference between abstract Case and morphological Case and that the

morphological nominative shows up only when the pronoun on which it is realized is "close enough" to the matrix INFL, and the morphological objective when it is remote from the INFL.

<sup>5</sup> We are tacitly assuming that rule (44) applies before the other Case-marking, but this does not mean that, while the latter Case-marking applies at S-structure, the former rule applies during the mapping from D- to S-structure, since there is evidence to show that it applies after Move  $\alpha$ , as illustrated in (i):

- (i) a. [[destruction] [the city]] (D-structure)
- b. [[the city] [destruction t]] (S-structure)
- c. [[the city's] [destruction t]] (rule (44))

We may, then, need to stipulate that rule (44) applies before the other Case-marking at S-structure. One may claim, to the contrary, that the ordering is free and that, in (45), if rule (44) applies before the Case inheritance from ING, then genitive Case shows up on the subject (generating the POSS-ING construction) and if Case inheritance takes place before rule (44), then objective Case is assigned to the subject (generating the ACC-ING construction). This idea seems very promising; I will leave it to future research.

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